

NOTES ON SOME SAN DIEGO COUNTY ENDEMICS

FRANK F. GANDER

Since the ranges of certain endemic species of San Diego County are not well known it seems advisable to publish additional information furnished by specimens in the Herbarium of the San Diego Society of Natural History. This is not a complete list of all species endemic to this county. The collections cited below help to define ranges or to extend them beyond reported limits. Numbers cited in parentheses refer to herbarium accession numbers. Unless otherwise stated collections were made by the author. I am indebted to Dr. Philip A. Munz of Pomona College for some of the determinations.

BLOOMERIA CLEVELANDII Wats. Common on mesas and slopes about San Diego, northeast to the vicinity of Fletcher Hills and southeast to Otay Mountain: San Diego (10,992, 15,010), *Daniel Cleveland* (6396, 6400, 6405, 6406, 6408); Woodwardia Canyon of Otay Mountain (15,007); mesa northeast of Murray Dam, near Fletcher Hills (15,088).

BRODIAEA ORCUTTHI (Greene) Baker. Occurs near streams, in seepage areas, and in beds of vernal pools from San Marcos to Otay Mountain: Kearney Mesa (11,099, 11,333); San Diego (15,216); four miles west of San Marcos (16,052); Woodwardia Canyon of Otay Mountain (16,055).

CALOCHORTUS DUNNII Purdy. Dry stony slopes of the Cuyamaca Mountains at altitudes from 3500 to 4500 feet: Inspiration Point, *Florence Youngberg* (11,740); Otay Mountain (11,722).

CHORIZANTHE ORCUTTIANA Parry. Rare; reported only from Point Loma and Kearney Mesa: Point Loma, *T. S. Brandege* (1218), *D. Cleveland & Charles Orcutt* (7857); *Daniel Cleveland* (7858); Kearney Mesa (10,604).

CAULANTHUS STENOCARPUS Payson. Harbison Canyon southwest of Alpine (14,699). Heretofore reported only from Bernardo near Lake Hodges.

SEDUM VARIEGATUM Wats. This yellow-flowered form is common in depressions of the mesas from Kearney Mesa to Otay, and inland to El Cajon: East San Diego, *Ralph W. Sumner* (2071); National Ranch, *Daniel Cleveland* (8324, 8325); El Cajon, *Daniel Cleveland* (8326); near mouth of Mission Gorge (15,954); San Diego State College (15,955); Lemon Grove (15,956); Otay (15,957); Kearney Mesa (16,031).

HEUCHERA BREVISTAMINEA Wiggins. Known only from the Laguna Mountains: Shrine Camp, Vallecitos View, *Charles F. Harbison* (12,088); Garnet Peak, *Charles F. Harbison* (12,089).

RIBES CANTHARIFORME Wiggins. Common in the shade of large boulders on sheltered slopes near Morena Dam and on the north slope of Lyons Peak. On March 12, 1936, the writer found many plants in full bloom on the sheltered hillside below the dam (13,919). Every bush observed at this site was crowded close against the shaded side of a large boulder and was often completely hidden by the rest of the chaparral. At the type locality, a short distance east of the south end of the Morena Dam, one bush was found (13,918). On March 29, 1936, the species was also found in abundance on the upper part of the north slope of Lyons Peak, about 13 miles due west of the type locality, extending from near the top, at 3755 feet, down to about 3100 feet (14,296). Most of the plants found here were in the shelter of large boulders, but a few were seen in dense chaparral in sheltered places. This species of *Ribes* may occur quite widely in the southern part of San Diego County, as the area has been incompletely explored botanically and it is easily overlooked.

ASTRAGALUS OOCARPUS Gray. Occurs on dry slopes in our mountains: Julian, *Daniel Cleveland* (8536); falls of San Diego River, *Daniel Cleveland* (8537); Witch Creek (11,943); Santa Ysabel (16,168, 16,201); Pine Hills (16,205); Carrizo Creek near Lake Henshaw (16,171); Black Canyon near Mesa Grande (16,332); Palomar Mountain (16,328).

CEANOTHUS CYANEUS Eastwood. Occurs in scattered clumps in the chaparral from Mussey Grade to near Alpine, and abundantly on the northeast slope of El Cajon Mountain: Mussey Grade (15,098); four miles west of Alpine (15,279, 16,297); Barona Valley (15,585); northeast slope of El Cajon Mountain, altitude 3000 feet (15,628); southeast base of El Capitan (15,752); top of rocky bluff between San Vicente Creek and San Diego River at their junction near Lakeside, the type locality, *M. Phillbrook & F. Gander* (15,224).

CEANOTHUS AUSTROMONTANUS Abrams. Occurs in the chaparral from near Cuyamaca Lake to near Lake Henshaw: Inspiration Point (11,304); Pine Hills (16,111); Cuyamaca Lake (16,208); south of Lake Henshaw on road to Mesa Grande.

CLARKIA DELICATA (Abrams) Nelson & Macbride. Occasional in openings in the chaparral near Mesa Grande and San Felipe Creek to Campo, Potrero Grade and Harbison Canyon: five miles south of Mesa Grande (11,359); burn in Harbison Canyon (14,698).

ACANTHOMINTHA ILICIFOLIA Gray. In adobe lands from Kearney Mesa, San Diego, and Bonita inland to Viejas Grade: Viejas Grade, *Daniel Cleveland* (6668, 6670, 6671); San Diego, *Daniel Cleveland* (6669); Bonita, *H. E. Hansen* (11,457); San Diego

State College (15,023); slope at mouth of Mahogany Canyon, San Diego (15,451); slope at junction of Alvarado Canyon and Mission Valley (15,453); Kearney Mesa (16,020).

SALVIA PALMERI (Gray) Greene. Apparently a hybrid between *Salvia apiana* Jepson and *Salvia Clevelandii* (Gray) Greene, this species has been seldom collected: east of Mount Woodson, near Ramona (16,064). The type material was secured by Dr. Edward Palmer on the Tighe Ranch at the foot of the grade on the old road between Ramona and Ballena. It has also been reported from Torrey Pines Park and from Descanso Grade.

POGOGYNE NUDIUSCULA Gray. Found only in depressions on the mesas, mostly near San Diego: San Diego, (11,338), *Mary S. Snyder* (4351); *Daniel Cleveland* (6672, 6675, 6676, 6677); Loma Alta on Otay Mesa (11,557).

POGOGYNE ABRAMSII J. T. Howell. Known only from depressions in the mesas near San Diego: San Diego (15,036), *Daniel Cleveland* (6673); Miramar (11,332); Kearney Mesa (16,006).

MONARDELLA LANATA Abrams. Known previously only from the region between Descanso and Alpine: Otay Mountain (11,679); Mt. Woodson (16,065, 16,070).

AMBROSIA PUMILA (Nutt.) Gray. Common around San Diego and in El Cajon Valley, ranging north to San Luis Rey Valley, south to National City, and inland to two miles east of El Cajon: San Diego, *Daniel Cleveland* (8638, 8639, 8640, 8641, 8642); Old Mission Dam in Mission Gorge (5647); Santee (11,492, 15,779); east of El Cajon (12,059); Bostonia cut-off near railroad crossing (15,777); junction of Bostonia cut-off and Lakeside road (15,778); National City (15,581); Sweetwater Dam (15,999); Bostonia (16,001); Lake Hodges (16,019); Mission Valley, west of San Diego Mission (16,048).

GERAEA VISCIDA (Gray) Blake. Known only from dry slopes and hills in southern San Diego County: Campo, *Fidella G. Woodcock* (5569, 5570, 5571, 5572, 5573); *George Stenberg* (11,454); Jacumba, *Daniel Cleveland* (8849); Hipass (15,295).

ARTEMISIA PALMERI Gray. This species has been reported previously only from Jamul Valley, National City, and La Jolla: Jamul, *Susan G. Stokes* (13,463); east of Mount Woodson (16,066) San Vicente Creek near Foster (16,202); Bostonia cut-off near junction with Lakeside road (16,338); Japatul Valley (16,339).

Natural History Museum,
San Diego, California,
November 11, 1936.